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EXAMINER	
SELBY, GEVELL V	
ART UNIT	**PAPER NUMBER**
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/692,305	KALEVO, OSSI	
	Examiner	Art Unit	
	Gevell Selby	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 June 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 3-5, and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin, US 6,778,216 in view of Lyon et al., US 6,512,858.

In regard to claim 1, Lyon et al., US 6,512,858, discloses a method comprising:

generating a real-time video signal of the video image by a camera sensor of the image generating and processing block (see column 3, lines 7-9 and 42-65),

generating the real-time vertically and horizontally downscaled video signal using horizontal downscaling of the real-time vertical downscaled video signal by a processing block of the image generating and processing block (see column 6, lines 25-34).

The Lin reference does not disclose generating a real-time horizontally downscaled video signal using horizontal downscaling of the real-time video signal by the camera sensor without using a line memory.

Lyon et al., US 6,512,858, discloses an electronic camera with a sensor array and control circuit (see figure 2) wherein the camera operates in several display modes from high-resolution partial display mode to full frame mode. The Lyon reference discloses generating a real-time horizontally downscaled video signal using horizontal downscaling of the real-time video signal by the camera sensor without using a line memory, by skipping columns at the start of the high resolution mode or skipping ever few columns in the full frame or zoom modes depending of the desired resolution. (see column 3, line 53 to column 4, line 24)

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Lin, US 6,778,216, in view of Lyon et al., US 6,512,858, to generate a real-time horizontally downscaled video signal using horizontal downscaling of the real-time video signal by the camera sensor without using a line memory, in order to quickly produce a real-time preview image to allow image verification by allowing the high resolution pixel array to be mapped to the lower resolution display, thus allowing the user to select the resolution of section of the image they would like to view as well as view the entire image.

In regard to claim 3, Lin, US 6,778,216, in view of Lyon et al., US 6,512,858, discloses the method of claim 1, The Lin reference discloses wherein the camera sensor has a camera memory (see figure 1, element 7 and column 3, lines 45-67).

In regard to claim 4, Lin, US 6,778,216, in view of Lyon et al., US 6,512,858, discloses the method of claim 1. The Lin reference discloses wherein the processing

block has a processing memory (see figure 1, element 7 and column 3, line 67 to column 4, line 3).

In regard to claim 5, Lin, US 6,778,216, in view of Lyon et al., US 6,512,858, discloses the method of claim 1. The Lin reference discloses further comprising the step of: providing the real-time vertically and horizontally downscaled video signal indicative of the video image through an internal bus to a real-time viewfinder display and displaying said video image on the real-time viewfinder display (see column 3, lines 45-64 and figure 1).

In regard to claim 9, Lin, US 6,778,216, in view of Lyon et al., US 6,512,858, discloses the method of claim 1. The Lin reference discloses further comprising: encoding the vertically and horizontally downscaled video signal by a video packing block of the image generating and processing block, thus generating an encoded video signal (see and column 3, line 67 to column 4, line 10).

In regard to claim 10, Lin, US 6,778,216, discloses the image generating and processing block, comprising:

a camera sensor (see figure 1, element 2), responsive to a video image configured to generate a real-time video signal of the video image (see column 3, lines 31-41); and

a processing block (see figure 3), responsive to the real-time vertically downscaled video signal (see column 4, lines 20-29), for generating a real-time vertically and horizontally downscaled video signal using horizontal downscaling of the real-time vertically downscaled video signal (see column 6, lines 25-34).

The Lin reference does not disclose that the camera sensor is configured to generate a real-time horizontally downscaled video signal using horizontal downscaling of the real-time video signal without using a line memory.

Lyon et al., US 6,512,858, discloses an electronic camera with a sensor array and control circuit (see figure 2) wherein the camera operates in several display modes from high-resolution partial display mode to full frame mode. The Lyon reference discloses generating a real-time horizontally downscaled video signal using horizontal downscaling of the real-time video signal by the camera sensor without using a line memory, by skipping columns at the start of the high resolution mode or skipping ever few columns in the full frame or zoom modes depending of the desired resolution. (see column 3, line 53 to column 4, line 24)

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Lin, US 6,778,216, in view of Lyon et al., US 6,512,858, to have the camera sensor is configured to generate a real-time horizontally downscaled video signal using horizontal downscaling of the real-time video signal without using a line memory, in order to quickly produce a real-time preview image to allow image verification by allowing the high resolution pixel array to be mapped to the lower resolution display, thus allowing the user to select the resolution of section of the image they would like to view as well as view the entire image.

In regard to claim 11, Lin, US 6,778,216, in view of Lyon et al., US 6,512,858, discloses the image generating and processing block of claim 10. The Lin reference

discloses wherein the camera sensor has a camera memory (see figure 1, element 7 and column 3, lines 45-67).

In regard to claim 12, Lin, US 6,778,216, in view of Lyon et al., US 6,512,858, discloses the image generating and processing block of claim 10. The Lin reference discloses wherein the processing block has a processing memory (see figure 1, element 7 and column 3, lines 45-67).

4. Claims 2 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin, US 6,778,216, in view of Lyon et al., US 6,512,858, as applied to claims 1 and 10 above, and further in view of Haavisto, US 2002/0071037.

In regard to claims 2 and 13, Lin, US 6,778,216, in view of Lyon et al., US 6,512,858, discloses the method and image generating and processing block of claims 1 and 10. The Lin reference discloses further comprising: an internal bus or data line, responsive to the real-time horizontally downscaled video signal from the camera sensor, for providing the real-time horizontally downscaled video signal to the processing block (see figure 1).

The Lin and Lyon references do not disclose the internal bus is a camera compact port (CCP) bus.

Haavisto, US 2002/0071037, discloses a camera with a camera compact port bus to transfer image and statistical data together to the processor (see figure 3, element 310 and para. 17).

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Lin, US 6,778,216, in view of Lyon et al.,

US 6,512,858, and further in view of Haavisto, US 2002/0071037, to have a camera compact port (CCP) bus, in order to quickly and easy transfer the image data.

In regard to claim 13, Lin, US 6,778,216, discloses the image generating and processing block (12) of claim 10, further comprising: a camera compact port (CCP) bus (15), responsive to the real-time horizontally downscaled video signal (18) from the camera sensor (14), for providing the real-time horizontally downscaled video signal (18) to the processing block (16).

5. Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin, US 6,778,216, in view of Lyon et al., US 6,512,858, as applied to claim 5 above, and further in view of Yi, US 7,003,040.

In regard to claim 6, Lin, US 6,778,216, in view of Lyon et al., US 6,512,858, discloses the method of claim 5. The Lin and Lyon references do not disclose wherein the image generating and processing block is a part of a camera-phone mobile device.

Yi, US 7,003,040, discloses a camera-phone mobile device (see figure 2) with a processor (see figure 3, element 20) that displays images in real-time (see column 4, lines 40-60).

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Lin, US 6,778,216, in view of Lyon et al., US 6,512,858, and further in view of Yi, US 7,003,040, to have the processor and method of the Lin reference applied to a camera phone, in order to easily output the image data to other devices in remote locations.

In regard to claim 8, Lin, US 6,778,216, in view of Lyon et al., US 6,512,858, and further in view of Yi, US 7,003,040, discloses the method of claim 6,. The Lin reference discloses further comprising: encoding (see figure 1, element 9) the real-time vertically and horizontally downscaled video signal by a video packing block (see figure 4, elements 51 and 53) of the image generating and processing block (see figure 1, element 5), thus generating an encoded video signal, and providing said encoded video signal through a further internal bus (see figure 1 and column 3, line 67 to column 4, line 10; since the following limitation is optional, it is not required to disclosed in the prior art: optionally to a file/stream block and to a phone memory (28a) of the camera-phone mobile device).

6. **Claims 14-16, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin, US 6,778,216, in view of Lyon et al., US 6,512,858, and Yi, US 7,003,040.**

In regard to claim 14, Lin, US 6,778,216, discloses a camera comprising:

an image generating and processing block (see figure 1, element 5) for generating a real-time vertically and horizontally downscaled video signal of a video image, and for encoding said real-time vertically and horizontally downscaled video signal thus generating an encoded video signal (see column 4, lines 1-10, column 4, lines 20-29, and column 6, lines 25-34); and

a real-time viewfinder display (see figure 1, element 11), responsive to the real-time vertically and horizontally downscaled video signal, for providing a display of the video image indicative by said real-time vertically and horizontally downscaled video signal (see column 4, lines 1-19).

The Lin reference does not disclose that the camera is part of a camera-phone mobile device.

Yi, US 7,003,040, discloses a camera-phone mobile device (see figure 2) with a processor (see figure 3, element 20) that displays images in real-time (see column 4, lines 40-60).

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Lin, US 6,778,216, in view of Yi, US 7,003,040, to have the processor and method of the Lin reference applied to a camera phone, in order to easily output the image data to other devices in remote locations.

The Lin and Yi references do not disclose wherein the real-time vertically and horizontally downscaled video signal is horizontally downscaled first without suing a line memory.

Lyon et al., US 6,512,858, discloses an electronic camera with a sensor array and control circuit (see figure 2) wherein the camera operates in several display modes from high-resolution partial display mode to full frame mode. The Lyon reference discloses generating a real-time horizontally downscaled video signal using horizontal downscaling of the real-time video signal by the camera sensor without using a line memory, by skipping columns at the start of the high resolution mode or skipping ever few columns in the full frame or zoom modes depending of the desired resolution. (see column 3, line 53 to column 4, line 24)

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Lin, US 6,778,216, in view of Lyon et al.,

US 6,512,858, and Yi, US 7,003,040, to generate a real-time horizontally downscaled video signal using horizontal downscaling of the real-time video signal by the camera sensor wherein the real-time vertically and horizontally downscaled fist without using a line memory, in order to quickly produce a real-time preview image to allow image verification by allowing the high resolution pixel array to be mapped to the lower resolution display, thus allowing the user to select the resolution of section of the image they would like to view as well as view the entire image.

In regard to claim 15, Lin, US 6,778,216, in view of Lyon et al., US 6,512,858, and Yi, US 7,003,040, discloses the camera-phone mobile device of claim 14. The Yi reference discloses further comprising: a file/stream block (see figure 3, antenna), responsive to the encoded signal, for providing a call connection to other mobile devices (see column 5, lines 35-41); and a phone memory (see figure 3, element 22), responsive to the encoded signal, for providing the encoded signal (see Lin: column 4, lines 8-10).

In regard to claim 16, Lin, US 6,778,216, in view of Lyon et al., US 6,512,858, and Yi, US 7,003,040, discloses the camera-phone mobile device of claim 14. The Lin reference discloses wherein the image generating and processing block, comprising:

a camera sensor (see figure 1, element 2), responsive to a video image, for generating a real-time video signal of the video image and for further generating a real-time horizontally downscaled video signal using horizontal downscaling of the real-time video signal by the camera sensor (see column 3, lines 31-41); and

a processing block (see figure 3), responsive to the real-time vertically downscaled video signal (see column 4, lines 20-29), for generating a real-time

vertically and horizontally downscaled video signal using horizontal downscaling of the real-time vertically downscaled video signal (see column 6, lines 25-34).

In regard to claim 18, Lin, US 6,778,216, in view of Lyon et al., US 6,512,858, and Yi, US 7,003,040, discloses the camera-phone mobile device of claim 16. The Lin reference discloses wherein the camera sensor has a camera memory (see figure 1, element 7 and column 3, lines 45-67).

In regard to claim 19, Lin, US 6,778,216, in view of Lyon et al., US 6,512,858, and Yi, US 7,003,040, discloses the camera-phone mobile device of claim 16. The Lin reference discloses wherein the processing block has a processing memory (see figure 1, element 7 and column 3, lines 45-67).

7. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lin, US 6,778,216, in view of Lyon et al., US 6,512,858, and Yi, US 7,003,040, as applied to claim 16 above, and further in view of Haavisto, US 2002/0071037.

In regard to claim 20, Lin, US 6,778,216, in view of Lyon et al., US 6,512,858, and Yi, US 7,003,040, discloses the camera-phone mobile device of claim 16, further comprising:

an internal bus, responsive to the real-time horizontally downscaled video signal from the camera sensor, for providing the real-time horizontally downscaled video signal to the processing block (see figure 1).

The Lin, Lyon, and Yi references do not disclose the internal bus is a camera compact port (CCP) bus.

Haavisto, US 2002/0071037, discloses a camera with a camera compact port bus to transfer image and statistical data together to the processor (see figure 3, element 310 and para. 17).

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Lin, US 6,778,216, in view of Lyon et al., US 6,512,858, and Yi, US 7,003,040, and further in view of Haavisto, US 2002/0071037, to have a camera compact port (CCP) bus, in order to quickly and easy transfer the image data.

8. Claims 7 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin, US 6,778,216, in view of Lyon et al., US 6,512,858, and Yi, US 7,003,040, as applied to claims 6 and 16 above, and further in view of Atsum, US 2005/0036046.

In regard to claims 7 and 17, Lin, US 6,778,216, in view of Lyon et al., US 6,512,858, and Yi, US 7,003,040, discloses the method of claims 6 and 16, respectively. The Lin, Lyon, and Yi references do not disclose wherein the processing block is a base band engine of the camera-phone mobile device.

Atsum, US 2005/0036046, discloses a camera phone system wherein the base-band engine (see figure 1, element 53) may be used for image processing (see para 30).

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Lin, US 6,778,216, in view of Lyon et al., US 6,512,858, and Yi, US 7,003,040, and further in view of Atsum, US 2005/0036046, wherein the processing block is a base band engine of the camera-phone mobile device,

in order for the camera phone to quickly process the image data to display the real-time view.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gevell Selby whose telephone number is 571-272-7369. The examiner can normally be reached on 8:00 A.M. - 5:30 PM (every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lin Ye can be reached on 571-272-7372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

gvs

LIN YE
SUPERVISORY PATENT EXAMINER